

## BIOGRAPHICAL SKETCH

**NAME:** Marina Evans

**POSITION TITLE:** Biomedical Engineer

### EDUCATION/TRAINING

Institution	Degree	Year	Field of Study
University of Virginia	B.S.	1980	Engineering Science
University of Virginia	M.S.	1981	Biomed Engineering
University of Virginia	Ph.D.	1987	Biomed Engineering

### PROFESSIONAL EXPERIENCE:

1993 - present                      Biomedical Engineer at the US EPA in RTP , NC.  
1991-1993                          Postdoctoral Fellow - Center for Environmental Medicine and Lung Biology at UNC, Chapel Hill, NC.  
1989-1990                          Research Analyst - Reproductive Hormone Lab, Duke University.  
1988-1989                          Research Associate - Neurobiology Dept., Duke University.  
1986                                  Instructor - UNC Charlotte, Dept. of Electrical Engineering.

### PROFESSIONAL SOCIETIES:

Councilor, Biological Modeling Specialty Section (SOT) (2002 – 2004)  
Biomedical Engineering Society (1997 – present)  
Society of Toxicology (1993 – present)  
Tau Beta Pi Engineering Honorary Society (1980 – present)

### SELECTED AWARDS AND HONORS:

STAA Awards for 1994, 1998 and 2000.  
NHEERL Award for Outstanding Work in 2002.

### INVITED LECTURES/SYMPOSIA:

Regular presenter at SOT's Annual Meetings since 1994.  
Attended the Benzene State of the Science Workshop (1998)  
Invited guest lecturer for PBPK modeling at UNC for Toxicology course (1998 – 1999)  
Speaker at Bioengineering Conference in Montana (1999)  
Sensitivity analysis seminar at NC State (1999)

### ASSISTANCE/LEADERSHIP PROVIDED TO THE SCIENTIFIC COMMUNITY:

Co-founder of the Biological Modeling Specialty Section (BMSS) for SOT.  
Serving as Councilor in BMSS for three years.

### ASSISTANCE/LEADERSHIP PROVIDED TO THE AGENCY:

Member of malathion workgroup for application of PBPK to risk assessment.  
Member of carbamate workgroup for cumulative risk assessment.  
Member of pyrethroid workgroup for cumulative risk assessment.

### PUBLICATIONS (From January 1, 1998 to present):

1. Smith, A.E., EVANS, M.V., and Davidian, M. (1998). Statistical properties of fitted estimates of apparent in vivo metabolic constants obtained from gas uptake data. I. Lipophilic and slowly metabolized VOCs. *Inhalation Toxicology*. 10:383-409.
2. Delp, M.D., EVANS, M.V., and Duan, C.P. (1998). Effects of aging on cardiac output, regional blood flow, and body composition in Fischer-344 rats. *Journal of Applied Physiology*. 85:1813-1822.

3. EVANS, M.V., and Andersen, M.E. (2000). Sensitivity analysis of a physiological model for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD): Assessing the impact of specific model parameters on sequestration in liver and fat in the rat. *Toxicological Sciences*.54:71-80.
4. Boyes, W.K., Bushnell, P.J., Crofton, K.M., EVANS, M.V., and Simmons, J.E. (2000). Neurotoxic and Pharmacokinetic responses to trichloroethylene as a function of exposure scenario. *Environmental Health Perspectives*. 108:317-322.
5. Easterling, M.R., EVANS, M.V., and Kenyon, E.M. (2000). Comparative analysis of software for physiologically based pharmacokinetic modeling: simulation, optimisation and sensitivity analysis. *Toxicology Methods*. 10:203-229.
6. Kenyon, E.M., Fea, M., and EVANS, M.V. (2001). Application of modeling techniques to the planning of in vitro arsenic pharmacokinetic studies. *Alternative to Laboratory Animals*. 29:15-33.
7. EVANS, M.V. and Eklund, C.R. (2001). A graphical application of sensitivity analysis for gas uptake experiments using chloroform as an example. *Toxicology Methods*. 11:1-13.
8. EVANS, M.V., Boyes, W.K., Simmons, J.E., Litton, D.K., and Easterling, M.R. (2002). A comparison of Haber's rule at different ages using a physiologically based pharmacokinetic (PBPK) model for chloroform in rats. *Toxicology*. 176:11-23.
9. Albanese, R.A., Banks, H.T., EVANS, M.V., and Potter, L.K. (2002). Physiologically based pharmacokinetic models for the transport of trichloroethylene in adipose tissue. *Bulletin of Mathematical Biology*. 64:97-131.
10. Simmons, J.E., Boyes, W.K., Bushnell, P.J., Raymer, J.H., Limsakun, T., McDonald, A., Sey, Y.M., and EVANS, M.V. (2002). A physiologically-based pharmacokinetic model for trichloroethylene in the Long Evans rat. *Toxicological Sciences*. 69:3-15.
11. Easterling, M.R., EVANS, M.V., and Kenyon, E.M. (2002). Pharmacokinetic modeling of arsenite uptake and metabolism in hepatocytes – Mechanistic insights and implications for further experiments. *J Pharmacokinetics and Pharmacodynamics*. 29:207-234.
12. Tornero-Velez, R., Ross, M.K., Granville, C., Laskey, J., DeMarini, D.M., and EVANS, M.V. (2003). Metabolism and Mutagenicity of Source Water Contaminants 1,3-dichloropropane and 2,2-dichloropropane. Submitted to Internal Review.
13. Isaacs, K.K., EVANS, M.V., and Harris, T.R. (2003). Visualization-based analysis for a mixed inhibition binary PBPK model: Determination of inhibition mechanism. Submitted to Internal Review.